

CLAIMS

What is claimed is:

- Sub G2*
1. 1. A method of removing a particle from a metal layer over a substrate comprising:
2. depositing a first agent onto the substrate;
3. polishing the metal layer with the first agent; and
4. introducing a second agent comprising hydrogen peroxide onto the metal layer.
 1. 2. The method of claim 1, wherein polishing the metal layer comprises polishing a metal
2. material selected from the group consisting of tungsten and copper.
 1. 3. The method of claim 1, wherein polishing the metal layer comprises polishing with the
2. first agent having an abrasive material selected from the group consisting of silica, alumina,
3. zirconia, and ceria.
 1. 4. The method of claim 1, wherein polishing comprises chemical mechanical polishing.
 1. 5. The method of claim 1, wherein introducing the second agent occurs after the operation of
2. polishing the metal layer and the substrate.
 1. 6. The method of claim 1, wherein introducing the second agent comprises introducing a
2. second agent of approximately 4% by volume or less of hydrogen peroxide.
 1. 7. The method of claim 1, further comprising polishing the substrate with the second agent.
 1. 8. The method of claim 1, wherein polishing the metal layer with the second agent includes
2. polishing with a polisher operating at a polishing pressure approximately in the range of 0.5 to
3. 2.0 psi.
 1. 9. A method of removing at least one particle from a portion of a metal layer on a substrate
2. comprising:
- Sub G3*

3 depositing a slurry onto the substrate;
4 polishing the metal layer and the substrate; and
5 rinsing the substrate with a solution comprising hydrogen peroxide.

1 10. The method of claim 9, wherein polishing the metal layer comprises polishing a metal
2 material selected from the group consisting of tungsten, copper, and aluminum.

1 11. The method of claim 9, wherein depositing the slurry further comprises depositing a
2 slurry having an abrasive material selected from the group consisting of silica, alumina, zirconia,
3 and ceria.

1 12. The method of claim 9, wherein rinsing the substrate occurs after polishing the metal layer
2 and substrate.

1 13. The method of claim 9, wherein rinsing the substrate comprises rinsing with the solution
2 which comprises approximately 4% by volume or less of hydrogen peroxide.

1 14. The method of claim 9, wherein polishing the metal layer includes removing the metal
2 layer at a rate of approximately in the range of 40Å/minute to 80Å/minute.

1 15. The method of claim 9, wherein polishing comprises chemical mechanical polishing.

1 16. The method of claim 9, wherein rinsing occurs during polishing; and
2 polishing comprises polishing with a polisher at a polishing pressure approximately in the
3 range of 0.5 to 2.0 psi.

1 17. The method of claim 16, wherein the metal layer is removed at a rate of 60Å/minute.

1 18. A method of polishing a metal layer on a substrate comprising:
2 polishing the metal layer and introducing a rinsing solution onto the metal layer, the
3 rinsing solution comprising hydrogen peroxide.

1 19. The method of claim 18, further including polishing the substrate with an abrasive
2 material, wherein the rinsing solution is introduced after a polishing of the substrate.

1 20. The method of claim 18, wherein introducing a rinsing solution comprises introducing a
2 rinsing solution of approximately 4% by volume or less of hydrogen peroxide.

1 21. The method of claim 18, wherein introducing a rinsing solution occurs during polishing the
2 metal layer in which a polishing pressure is used approximately in the range of 0.5 to 2.0 psi.

1 22. The method of claim 18, wherein a metal layer is removed at a rate of 60Å/minute.